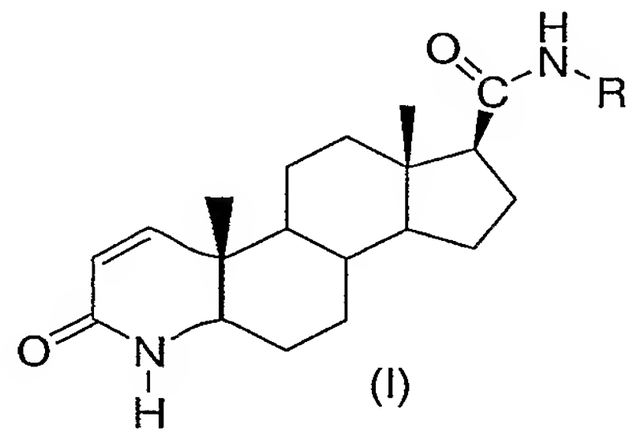
WHAT IS CLAIMED IS:

1. A method of treating a male subject with visceral adiposity, metabolic syndrome, type II diabetes, or insulin resistance, comprising administration of an effective amount of a compound selected from a compound of structural formulae I, II, III and IV, or a pharmaceutically acceptable salt thereof to the male subject,

wherein, structural formula I is:



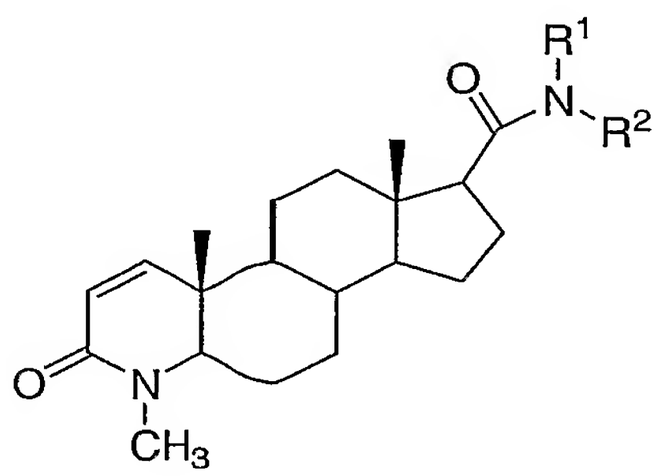
(I)

wherein R is selected from:

(a) C_{1-10} alkyl, unsubstituted or substituted with one to three halogen substituents, and

(b) phenyl, unsubstituted or substituted with one to three substituents independently selected from halogen, methyl, and trifluoromethyl;

wherein structural formula II is:



(II)

wherein:

R^1 is selected from

(a) H, and

(b) C_{1-6} alkyl;

R^2 is selected from:

(a) diarylmethyl, either unsubstituted or substituted on one or both of the aryl rings with one to three substituents independently selected from:

(1) halo (F, Cl, Br, I),

(2) C_{1-2} alkyl,

(3) trifluoromethyl,

(4) nitro,

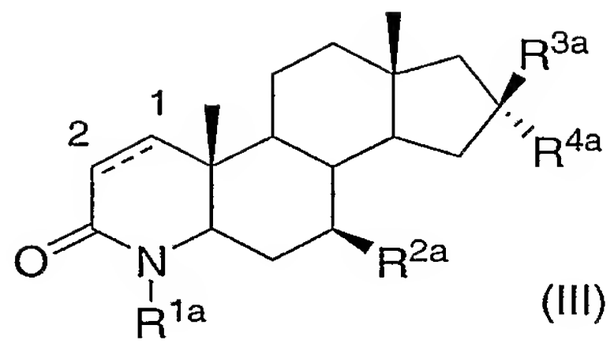
(5) hydroxy,
(6) cyano,
(7) phenyl,
(8) C_{1-2} alkyloxy,
(9) heteroaryl,
(10) $S(O)_nR^3$, wherein n is selected from 0, 1, and 2, and
(11) alkyoxy;

(b) phenyl substituted with one to three substituents independently selected from:
(1) halo (F, Cl, Br, I),
(2) C_{1-2} alkyl;
(3) trifluoromethyl,
(4) nitro,
(5) hydroxy,
(6) cyano,
(7) phenyl,
(8) C_{1-2} alkyloxy,
(9) heteroaryl,
(10) $S(O)_nR^3$, wherein n is selected from 0, 1, and 2, and
(11) alkyoxy;

(c) heteroaryl, either unsubstituted or substituted with one to three substituents independently selected from:
(1) halo (F, Cl, Br, I),
(2) C_{1-2} alkyl;
(3) trifluoromethyl,
(4) nitro,
(5) hydroxy,
(6) cyano,
(7) amino,
(8) C_{1-2} alkyloxy,
(9) phenyl, and
(10) heteroaryl;

R^3 is selected from:
(a) C_{1-4} alkyl,
(b) phenyl, and
(c) heteroaryl;

wherein structural formula III is:



(III)

wherein:

the C1-C2 carbon-carbon bond may be a single bond, or a double bond as indicated by the dashed line;

R^{1a} is selected from the group consisting of hydrogen and methyl;

R^{2a} is selected from the group consisting of hydrogen and C_{1-10} alkyl;

one of R^{3a} and R^{4a} is selected from the group consisting of hydrogen and methyl, and the other is selected from the group consisting of:

(a) amino;

(b) cyano;

(c) fluoro,

(d) methyl;

(e) OH;

(f) $-C(O)NR_bR_c$, where R_b and R_c are independently H, C_{1-6} alkyl, aryl, or arylC_{1-6}alkyl; wherein the alkyl moiety can be substituted with 1-3 of: halo; C_{1-4}alkoxy; or trifluoromethyl; and the aryl moiety can be substituted with 1-3 of: halo; C_{1-4}alkyl; C_{1-4} alkoxy; or trifluoromethyl;

(g) C_{1-10} alkyl-X-;

(h) C_{2-10} alkenyl-X-;

wherein the C_{1-10} alkyl in (g) and C_{2-10}alkenyl in (h) can be unsubstituted or substituted with one to three of:

(i) halo; hydroxy; cyano; nitro; mono-, di- or trihalomethyl; oxo; hydroxysulfonyl; carboxy;

(ii) hydroxyC_{1-6}alkyl; C_{1-6}alkyloxy; C_{1-6} alkylthio; C_{1-6}alkylsulfonyl; C_{1-6} alkyloxycarbonyl; in which the C_{1-6} alkyl moiety can be further substituted with 1-3 of: halo; C_{1-4} alkoxy; or trifluoromethyl;

(iii) arylthio; aryl; aryloxy; arylsulfonyl; aryloxycarbonyl; in which the aryl moiety can be further substituted with 1-3 of: halo; C_{1-4} alkyl; C_{1-4} alkoxy; or trifluoromethyl;

(iv) $-C(O)NR_bR_c$; $-N(R_b)-C(O)-R_c$; $-NR_bR_c$; where R_b and R_c are defined above;

(i) aryl-X-;

(j) heteroaryl-X-, wherein heteroaryl is a 5, 6 or 7 membered heteroaromatic ring containing at least one member selected from the group consisting of: one ring oxygen atom, one ring sulfur atom, 1–4 ring nitrogen atoms , or combinations thereof; in which the heteroaromatic ring can also be fused with one benzo or heteroaromatic ring;

wherein the aryl in (i) and heteroaryl in (j) can be unsubstituted or substituted with one to three of:

(v) halo; hydroxy; cyano; nitro; mono-, di- or trihalomethyl; mono-, di- or trihalomethoxy; C_{2-6} alkenyl; C_{3-6} cycloalkyl; formyl; hydrosulfonyl; carboxy; ureido;

(vi) C_{1-6} alkyl; hydroxy C_{1-6} alkyl; C_{1-6} alkyloxy; C_{1-6} alkyloxy C_{1-6}alkyl; C_{1-6} alkylcarbonyl; C_{1-6} alkylsulfonyl; C_{1-6} alkylthio; C_{1-6} alkylsulfinyl; C_{1-6} alkylsulfonamido; C_{1-6} alkylarylsulfonamido; C_{1-6} alkyloxy-carbonyl; C_{1-6} alkyloxycarbonyl C_{1-6}alkyl; R_bR_cN-C(O)-C_{1-6}alkyl; C_{1-6} alkanoylamino C_{1-6} alkyl; aroylamino C_{1-6} alkyl; wherein the C_{1-6} alkyl moiety can be substituted with 1-3 of: halo; C_{1-4}alkoxy; or trifluoromethyl;

(vii) aryl; aryloxy; arylcarbonyl; arylthio; arylsulfonyl; arylsulfinyl; arylsulfonamido; aryloxycarbonyl; wherein the aryl moiety can be substituted with 1-3 of: halo; C_{1-4}alkyl; C_{1-4}alkoxy; or trifluoromethyl;

(viii) -C(O)NR_bR_c; -O-C(O)-NR_bR_c; -N(R_b)-C(O)-R_c; -NR_bR_c; R_b-C(O)-N(R_c)-; where R_b and R_c are defined in (f) above; and -N(R_b)-C(O)-OR_g, wherein R_g is C_{1-6}alkyl or aryl, in which the alkyl moiety can be substituted with 1-3 of: halo; C_{1-4}alkoxy; or trifluoromethyl, and the aryl moiety can be substituted with 1-3 of: halo; C_{1-4}alkyl; C_{1-4} alkoxy, or trifluoromethyl; -N(R_b)-C(O) NR_cR_d, wherein R_d is selected from H, C_{1-6} alkyl, and aryl; in which said C_{1-6}alkyl and aryl can be substituted as described above in (f) for R_b and R_c;

(ix) a heterocyclic group, which is a 5, 6 or 7 membered ring, containing at least one member selected from the group consisting of: one ring oxygen atom, one ring sulfur atom, 1-4 ring nitrogen atoms, or combinations thereof; in which the heterocyclic ring can be aromatic, unsaturated, or saturated, wherein the heterocyclic ring can be fused with a benzo ring, and

wherein said heterocyclic ring can be substituted with one to three substituents, as defined above for *v)*, *vi*), *vii*) and *viii*), excluding *ix*) a heterocyclic group; and

(k) R^{3a} and R^{4a} taken together can be carbonyl oxygen;

(l) R^{3a} and R^{4a} taken together can be $=CH\text{-}R_g$, wherein R_g is defined in *viii*); and wherein:

X is selected from the group consisting of:

-O-; $-S(O)_n$-; -C(O)-; $-CH(R_e)$-; -C(O)-O-*; $-C(O)-N(R_e)$-*;

$-N(R_e)$-C(O)-O-*; $-O-C(O)-N(R_e)$-*; $-N(R_e)C(O)-N(R_e)$-;

$-O-CH(R_e)$-*; -N(Re)-; wherein R_e is H, C_{1-3} alkyl, aryl, aryl- C_{1-3} alkyl, or unsubstituted or substituted heteroaryl, as defined above in (j);

wherein the asterisk (*) denotes the bond which is attached to the 16-position in Structure III; and n is zero, 1 or 2;

and wherein each alkyl and alkenyl moiety can be unsubstituted or substituted with one or more, and preferably 1 to three, of:

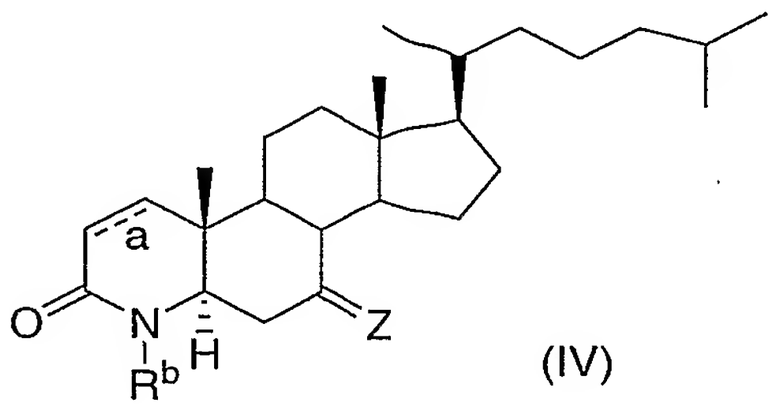
(*i*) halo; hydroxy; cyano; nitro; mono-, di- or trihalomethyl; oxo; hydroxysulfonyl; carboxy;

(*ii*) hydroxyC_{1-6}alkyl; C_{1-6}alkyloxy; C_{1-6} alkylthio; C_{1-6}alkylsulfonyl; C_{1-6} alkyloxycarbonyl; in which the C_{1-6} alkyl moiety can be further substituted with 1-3 of: halo; C_{1-4} alkoxy; or trifluoromethyl;

(*iii*) arylthio; aryl; aryloxy; arylsulfonyl; aryloxycarbonyl; in which the aryl moiety can be further substituted with 1-3 of: halo; C_{1-4} alkyl; C_{1-4} alkoxy; or trifluoromethyl; and

(*iv*) $-C(O)NR_bR_c$; $-N(R_b)-C(O)-R_c$; $-NR_bR_c$; where R_b and R_c are defined above; and halo is F, Cl, Br or I;

wherein structural formula IV is:



(IV)

wherein:

R^b is selected from hydrogen and methyl;

the dashed line " - - - " a represents a single bond or a double bond;

=Z is selected from:

(1) oxo,

(2) α-hydrogen and a β-substituent selected from:

(a) C_1-C_4 alkyl,
(b) C_2-C_4 alkenyl,
(c) CH_2COOH,
(d) -OH,
(e) -COOH,
(f) -COO(C_1-C_4 alkyl),
(g) -OCONR^{1b}R^{2b} wherein R^{1b} and R^{2b} independently are selected from:
(i) H,
(ii) C_1-C_4 alkyl,
(iii) phenyl, and
(iv) benzyl, or
R^{1b} and R^{2b} together with the nitrogen atom to which they are attached represent a 5-6 membered saturated heterocycle, optionally containing one other heteratom selected from -O-, -S- and -N(R')- wherein R' is -H or methyl;
(h) C_1-C_4 alkoxy,
(i) C_3-C_6 cycloalkoxy,
(j) -OC(O)-C_{1-4} alkyl,
(k) halo,
(l) hydroxy -C_1-C_2 alkyl,
(m) halo-C_1-C_2 alkyl,
(n) -CF_3, and
(o) C_3-C_6 cycloalkyl;

(3) =CHR3b; wherein R3b is selected from -H and C1-C4 alkyl.

2. The method according to Claim 1 wherein the male subject has serum testosterone levels less than 450 ng/dL.

3. The method according to Claim 1 wherein the male subject's waist circumference is greater than 102 cm.

4. The method according to Claim 1 wherein the effective amount of the compound of structural formula I, II, III or IV is an amount that reduces serum dihydrotestosterone levels by about 30% or more when administered to the male subject.

5. The method according to Claim 1 wherein the compound is selected from:

17β-(N-tert-butylcarbamoyl)-3-oxo-4-aza-5α–androst-1-en-3-one;

N-(2,5-bis-trifluoromethyl-phenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;

N-(diphenylmethyl)-4-methyl-3-oxo-4-aza-5α–androst-1-ene-17β-carboxamide;

N-(diphenylmethyl)-N-methyl-4-methyl-3-oxo-4-aza-5α-androst-1-ene-17β-carboxamide;

N-(2-methylphenyl)-3-oxo-4-aza-4-methyl-5α–androst-1-ene-17β-carboxamide;

N-(2-methoxyphenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;

N-(2-chlorophenyl)-3-oxo-4-aza-4-methyl-5α–androst -1-ene-17β-carboxamide;

N-(4-chlorophenyl)-3-oxo-4-aza-4-methyl-5α–androst -1-ene-17β-carboxamide;

N-(2-fluorophenyl)-3-oxo-4-aza-4-methyl-5α–androst-1-ene-17β-carboxamide;

N-(2-trifluoromethyl-phenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;

N-(2,5-bistrifluoromethyl-phenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;

N-(2-biphenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;

N-(4-biphenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;

N-(4-pyridyl)-3-oxo-4-methyl-4-aza-5α-androst-1-ene-17β-carboxamide;

N-(3-pyridyl)-3-oxo-4-methyl-4-aza-5α-androst-1-ene-17β-carboxamide;

N-(pyrazinyl)-3-oxo-4-methyl-4-aza-5α-androst-1-ene-17β-carboxamide;

N-(3-pyrazoyl)-3-oxo-4-methyl-4-aza-5α-androst-1-ene-17β-carboxamide;

N-(2-thiazolyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;

4-aza-4,7β-dimethyl-5α-androstane-3,16-dione;

4-aza-4-methyl-5α-androstan-3,16-dione;

3-oxo-4-aza-4-methyl-16β-hydroxy-5α-androstane;

3-oxo-4-aza-4-methyl-16β-(benzylaminocarbonyloxy)-5α-androstane;

3-oxo-4-aza-4-methyl-16β-benzoylamino-5α-androstane;

3-oxo-4-aza-4-methyl-16β-methoxy-5α-androstane;

3-oxo-4-aza-4-methyl-16β-allyloxy-5α-androstane;

3-oxo-4-aza-4-methyl-16β-(n-propyloxy)-5α-androstane;

3-oxo-4-aza-4-methyl-16α-hydroxy-5α-androstane;

3-oxo-4-aza-4-methyl-16β-(phenoxy)-5α-androstane;

3-oxo-4-aza-7β-methyl-16β-(phenoxy)-5α-androst-1-ene;

3-oxo-4-aza-4-methyl-16α-methoxy-5α-androstane;

3-oxo-4-aza-4-methyl-16β-(4-chlorophenoxy)–5α-androstane;

3-oxo-4-aza-7β-methyl-16β-(4-chlorophenoxy)-5α-androst-1-ene;

3-oxo-4-aza-7β-methyl-16β-(4-chlorophenoxy)-5α-androstane;

3-oxo-4-aza-7β-methyl-16β-(3-chloro-4-methylphenoxy)-5α-androstane;

3-oxo-4-aza-7β-methyl-16β-(4-methylphenoxy)-5α-androstane;

3-oxo-4-aza-7β-methyl-16β-(4-methylphenoxy)-5α-androst-1-ene;
3-oxo-4-aza-7β-methyl-16β-[4-(1-pyrrolyl)phenoxy]-5α-androst-1-ene;
3-oxo-4-aza-4,7β-dimethyl-16β-hydroxy-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-methoxy-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-allyloxy-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(3,3-dimethylallyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(n-propyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(iso-pentoxy)-5α-androstane;
3-oxo-4-aza-4,16α-dimethyl-16β-hydroxy–5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-ethyloxy-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-benzyloxy–5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16α-hydroxy-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-methylthio-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(n-propylthio)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-fluoro-5α–androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-cyano-5α–androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(1-hexyl)–5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(n-propyl)–5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-benzyl-5α–androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-chlorobenzyl)-5α-androstane;
3-oxo-4-aza-4,16α-dimethyl-16β-methoxy–5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-cyanophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(3-cyanophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-nitrophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(1-naphthyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(3-chloro–4-methylphenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-methylphenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(tert-butyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(3-methyl–1-butyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16α-(n-propyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-trifluoromethylphenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-trifluoromethoxyphenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-ethylthio-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-ethylsulfonyl-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-methylsulfonylphenoxy)-5α-androstane;

3-oxo-4-aza-4,7β-dimethyl-16β-[4-(4-tolylsulfonylamino)phenoxy]-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(3-pyridyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-[(4-phenyl)phenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-fluorophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(2-pyrazinyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-[4-(5-oxazolyl)phenoxy]-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(2-pyrimidinyloxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-[4-(1-pyrryl)phenoxy]-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-aminophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-acetylaminophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-benzoylaminophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-chlorophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(phenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(2-chlorophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(3-chlorophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-chlorophenoxy)-5α-androst-1-ene;
3-oxo-4-aza-4,7β-dimethyl-16-(4-chlorobenzylidene)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16-benzylidene-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16-(4-methylbenzylidene)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16-(4-chlorobenzyl)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16-(4-methylbenzyl)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16-(3-pyridylmethyl)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16α-methanesulfonyl-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-thiophenoxy-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-chlorothiophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-fluorothiophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-methylthiophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-methoxythiophenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-phenylsulfinyl-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-phenylsulfonyl-5α-androstane;
3-oxo-4-aza-4,7β,16α-trimethyl-16β-(4-trifluoromethylphenoxy)-5α-androstane,
3-oxo-4-aza-4,7β,16α-trimethyl-16β-hydroxy-5α-androstane;
3-oxo-4-aza-4,7β,16α-trimethyl-16β-methoxy-5α-androstane;
7β-ethyl-4-methyl-4-aza-cholest-5-en-3-one;
7β-ethyl-4-methyl-4-aza-cholestane-3-one;

7β-ethyl-4-aza-cholest-5-en-3-one;
7β-ethyl-4-aza-5α-cholestan-3-one;
7β-carboxymethyl-4-aza-cholest-5-en-3-one;
7β-carboxymethyl-4-aza-cholestan-3-one;
7β-propyl-4-methyl-4-aza-cholest-5-en-3-one;
7β-propyl-4-methyl-4-aza-5α-cholestan-3-one;
7β-propyl-4-aza-cholest-5-en-3-one;
7β-propyl-4-aza-5α-cholestan-3-one;
7β-methyl-4-aza-cholest-5-en-3-one;
7β-methyl-4-aza-cholestan-3-one;
4,7β-dimethyl-4-aza-cholest-5-en-3-one;
4,7β-dimethyl-4-aza-5α-cholestan-3-one;
4-methyl-4-aza-5α-cholestan-3,7-dione;
7β-acetoxy-4-methyl-4-aza-5α-cholestan-3-one;
4-methyl-4-aza-cholest-5-en-3,7-dione;
7β-hydroxy-4-methyl-4-aza-5α-cholestane-3-one;
7β-methoxy-4-methyl-4-aza-5α-cholestane-3-one;
7β-hydroxymethyl-4-aza-5α-cholestane-3-one;
7β-bromomethyl-4-aza-5α-cholestane-3-one;
7β-chloromethyl-4-aza-5α-cholestane-3-one;
7β-fluoromethyl-4-aza-5α-cholestane-3-one;
7β-carboxy-4-aza-5α-cholestane-3-one;
7β-trifluoromethyl-4-aza-cholest-5-en-3-one;
7,7-dimethoxy-4-methyl-4-aza-5α-cholestane-3-one;
7β-methoxy-4-methyl-4-aza-cholesta-5-en-3-one;
7β-methoxy-4-methyl-4-aza-cholesta-6-en-3-one;
7β-cyclopropyloxy-4-methyl-4-aza-5α-cholestane-3-one;
7β-cyclopropyloxy-4-methyl-4-aza-cholesta-5,7-dien-3-one;
7β-propylidene-4-methyl-4-aza-5α-cholestane-3-one;
7β-(2-ethyl)spiroethylene-4-methyl-4-aza-5α-cholestane-3-one; and
7β-methyl-4-aza-5α-cholest-1-en-3-one;
or a pharmaceutically acceptable salt thereof.

6. The method according to Claim 5, wherein the compound is selected from:
17β-(N-tert-butylcarbamoyl)-3-oxo-4-aza-5α-androst-1-en-3-one,

N-(2,5-bis-trifluoromethyl-phenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;
N-(2-trifluoromethyl-phenyl)-3-oxo-4-aza-4-methyl-5α-androst-1-ene-17β-carboxamide;
3-oxo-4-aza-7β-methyl-16β-(4-methylphenoxy)-5α-androst-1-ene;
3-oxo-4-aza-4,7β-dimethyl-16β-(phenoxy)-5α-androstane;
3-oxo-4-aza-4,7β-dimethyl-16β-(4-chlorophenoxy)-5α-androstane;
or a pharmaceutically acceptable salt thereof.

7. The method according to Claim 1, which comprises administering a compound of structural formula I and a compound of structural formula III.

8. The method according to Claim 7, wherein the compounds are finasteride and 3-oxo-4-aza-7β–methyl-16β–(4-methylphenoxy)-5α–androst-1-ene.

9. The method according to Claim 1, which comprises administering 3-oxo–4-aza-7β–methyl-16β–(4-methylphenoxy)-5α–androst-1-ene.

10. A pharmaceutical composition comprising:
a compound selected from a compound of structural formulae I, II, III and IV;
a compound selected from: an antidiabetic agent, a lipid lowering agent, an antihypertensive agent, an antiobesity agent, testosterone, a testosterone precursor, a testosterone pro-drug, a testosterone analog and an androgen receptor agonist;
and a pharmaceutically acceptable carrier.